

Listing of the Claims

The following listing of claims will replace all prior versions, and listings, of claims in the application. Please note that claims 1 and 11 are being amended.

1. (Amended) A piece of luggage comprising:
a housing defining a compartment for storing objects, said housing defining a closable opening for inserting and removing said objects, said housing containing only [being comprised of] a single fabric layer, the single fabric layer being [consisting essentially of] a woven fabric;
a chemical composition applied to said fabric, said chemical composition being incorporated into said fabric such that said fabric has an abrasion resistance that is at least twice the abrasion resistance of the woven fabric not treated with the chemical composition.
2. (Original) A piece of luggage as defined in claim 1, wherein said woven fabric is made from multifilament yarns, said yarns comprising nylon.
3. (Original) A piece of luggage as defined in claim 1, wherein said woven fabric is made from yarns having a denier of from about 1000 to about 1400.
4. (Original) A piece of luggage as defined in claim 3, wherein said woven fabric has from about 40 to about 45 ends per inch and from about 36 to about 46 picks per inch.
5. (Original) A piece of luggage as defined in claim 1, wherein said woven fabric treated with said chemical composition has an abrasion resistance of at least 4000 cycles.
6. (Original) A piece of luggage as defined in claim 1, wherein said woven fabric treated with said chemical composition has an abrasion resistance of at least 6000 cycles.
7. (Original) A piece of luggage as defined in claim 1, wherein said woven fabric treated with said chemical composition has an abrasion resistance of at least 8000 cycles.
8. (Original) A piece of luggage as defined in claim 1, wherein said woven fabric has a basis weight of from about 10 to about 15 ounces per square yard.

9. (Original) A piece of luggage as defined in claim 1, wherein said woven fabric has a basket weave.

10. (Original) A piece of luggage as defined in claim 1, wherein said chemical composition comprises a fluorocarbon polymer composition.

11. (Amended) A piece of luggage comprising:
a housing defining a compartment for storing objects, said housing defining a closable opening for inserting and removing said objects, said housing containing only [being comprised of] a single fabric layer, the single fabric layer being [consisting essentially of] a woven fabric, said woven fabric being made from multifilament nylon yarns, said yarns having a denier of from about 800 to about 1400; and
a chemical composition applied to said woven fabric, said chemical composition being incorporated into said fabric such that said fabric has an abrasion resistance that is at least twice the abrasion resistance of the woven fabric not treated with the chemical composition.

12. (Original) A piece of luggage as defined in claim 11, wherein said woven fabric treated with said chemical composition has an abrasion resistance of at least 4000 cycles.

13. (Original) A piece of luggage as defined in claim 11, wherein said woven fabric treated with said chemical composition has an abrasion resistance of at least 6000 cycles.

14. (Original) A piece of luggage as defined in claim 11, wherein said woven fabric treated with said chemical composition has an abrasion resistance of at least 8000 cycles.

15. (Original) A piece of luggage as defined in claim 11, wherein said woven fabric has from about 40 to about 45 ends per inch and from about 36 to about 46 picks per inch.

16. (Original) A piece of luggage as defined in claim 11, wherein said woven fabric has a basket weave.

17. (Original) A piece of luggage as defined in claim 11, wherein said chemical composition comprises a fluorocarbon polymer composition.

18. (Original) A piece of luggage as defined in claim 17, wherein said chemical composition further comprises an emulsifier and a drying agent.

19. (Original) A piece of luggage as defined in claim 11, wherein said multifilament yarns have a denier of from about 1050 to about 1260.

20. (Original) A piece of luggage as defined in claim 11, further comprising a water barrier applied to a surface of said woven fabric opposite said chemical composition, said water barrier comprising a material selected from the group consisting of polyurethanes and urethanes.

REMARKS

In view of the following remarks, reconsideration and allowance of claims 1-20, including independent claims 1 and 11, are respectfully requested.

In general, claims 1 and 11 are directed to a piece of luggage that is constructed from a woven fabric that has significantly improved abrasion resistant properties. In particular, the present invention is directed to a luggage fabric treated with a chemical composition, such as a durable water resistant composition. The present inventors discovered that the durable water resistant composition not only makes the fabric water resistant, but also imparts abrasion resistance to the fabric. In one embodiment, the water resistant coating may include a fluoropolymer.

In an amendment filed previously, Applicants amended claims 1 and 11 to further require that the piece of luggage include a housing made from a fabric layer that consisted essentially of a woven fabric. In the latest Office Action, however, as explained therein, the phrase "consisting essentially of" was construed as equivalent to "comprising". In order to clarify the scope of Applicants' claims and in order to better define the invention as described in the present application, claims 1 and 11 have now been amended to state that the housing contains only a single fabric layer and that the single fabric layer is a woven fabric.

Support for the amendments to claims 1 and 11 can be found throughout the specification with particular reference to Figure 2. Further, the Examiner's attention is also directed to Example 2 in the application in which finished fabrics made according to the present invention were tested. All of the samples tested contained a single fabric layer.

It is well settled that the subject matter of a claim need not be described literally or "in haec verba" in order for the specification to satisfy all of the requirements of 35 U.S.C. §112. Instead, the disclosure need only reasonably convey to persons skilled in the art that the inventor or inventors had possession of the subject matter in question. From a review of the application, there can be no question that the claims as now amended are supported by the specification as filed.

As now amended, claims 1 and 11 exclude the use of fabric composites in constructing the luggage of the present invention.¹ In fact, one of the advantages to the present invention is the ability to significantly improve the abrasion resistance of fabrics without the necessity of having to use multiple layers of different fabrics. Further, since the durable water resistant composition also makes the fabric water resistant, other fabric layers are also not needed in order to provide luggage articles having water resistant properties.

In the office action, claims 1-17 and 19 were rejected as being unpatentable over Stahle, et al. (US 5,187,005) in view of Hargis, et al. (US 5,674,951). As admitted in a previous office action, Stahle, et al. fail to disclose that a chemical composition doubled the abrasion resistance of the woven fabric, that the woven fabric has about 36 to about 46 picks per inch and a basis weight from about 10 to about 15 oz/yd², and that the chemical composition comprises a fluorocarbon polymer composition.

Stahle, et al. is specifically directed to the use of a fabric composite made from non-woven webs and woven fabrics. As stated in column 2, starting at line 64, Stahle, et al. teach that the use of a spunbond non-woven web in conjunction with other fabric layers replaces the typical water-proof coatings applied to luggage fabrics. Further, as stated in column 12, starting at line 5, the spunbond non-woven web provides resistance to yarn ravel when used in the construction of softside luggage.

As stated above, Stahle, et al. was combined with Hargis, et al. in rejecting claims 1 and 11. In the Field of Invention section, Hargis, et al. explain that their invention relates to a storage stable, heat curable, urethane composition which is useful as a low friction coating especially for elastomeric substrates such as vehicle glass run channel, door seals, and belt strips. Column 1, Lines 10-15. Hargis, et al. is mainly directed to urethane coating compositions which use as a portion thereof oxetane polymers having highly fluorinated side chains. Column 1, Lines 39-43. The preferred use is on glass run channels from ethylene-propylene-diene polymers where the coating allows automotive

¹ Applicant submitted an Amendment After Final on May 8, 2003. In that amendment, claims 1 and 11 were amended. In an Advisory Action dated June 3, 2003, Examiner Ruddock helpfully indicated that claims 1 and 11 as amended in the response filed May 8 were not going to be interpreted to preclude the use of other fabric layers. In response, claims 1 and 11 have been further amended to state that the housing contains only a single fabric layer. The plain meaning of the language of claims 1 and 11, without doubt, limits the claims to a single fabric layer and precludes the use of other fabric layers. As supported in the specification, however, claims 1 and 11 do allow for coatings to be applied to the fabric (see claim 20).

windows to move relative to the channel or belt strip with minimal friction. Column 1, Lines 19-22. The only mention of the chemical composition disclosed by Hargis, et al. on luggage is in the Polymerization Example 2 in column 12, line 45.

Even if Hargis, et al., however, were combinable with Stahle, et al., various features and aspects of the claimed invention remain absent. For instance, the essence of Stahle, et al. is to construct luggage using fabric composites made from non-woven layers and woven layers. Since claims 1 and 11 have been amended to require that the piece of luggage be made from a single fabric layer, it is believed that the claims as now amended patentably define over Stahle, et al. either alone or in combination with Hargis, et al.

Further, Applicants respectfully submit that there would have been no motivation or incentive to combine Hargis, et al. and Stahle, et al. in arriving at the claimed invention. For instance, Stahle, et al. teaches using a spunbond non-woven web in order to improve resistance to yarn ravel. Hargis, et al. simply discloses a coating composition that may be used (mentioned once) in the construction of luggage. There is no teaching or disclosure from either reference that by applying the coating composition in Hargis, et al. will a particular woven fabric double its abrasion resistance. At the very most, the combination of Stahle, et al. and Hargis, et al. provide an "obvious to try" situation. Such a combination, therefore, in no way rises to a Prima Facie case of obviousness necessary to reject the above claims.

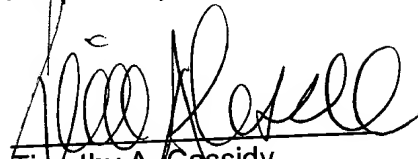
In the office action, Chakravarti, et al. and Tieniber, et al. were also cited in rejecting various dependent claims. Since these claims further limit and define the invention of claims 1 and 11, however, it is believed that all of the claims also patentably define over these two additional references.

In conclusion, it is believed that the present application is in complete condition for allowance and favorable action; therefore, it is respectfully requested. Examiner Ruddock is invited and encouraged to telephone the undersigned, however, should any issues remain after consideration of this response.

Please charge any additional fees required by this Amendment to Deposit Account No. 04-1403.

6/16/03
Date

Respectfully submitted,



Timothy A. Cassidy
DORITY & MANNING, P.A.

P.O. Box 1449
Greenville, SC 29602
(864) 271-1592
(864) 233-7342